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HAS EUROPEAN WAR AGAINST AMERICAN MANUFACTURES BEGUN?

BY O. P. AUSTIN, CHIEF OF THE UNITED STATES BUREAU OF STATISTICS.

THE decrease in our exports of manufactures naturally attracts much attention both in the United States and among our trade rivals in other parts of the world. All other classes of our exports show a satisfactory condition. Agricultural products show an increase of 60 million dollars in the eight months ending with August, 1901, compared with the eight months ending August, 1900, and those of the mines, the forest and the fisheries make a satisfactory showing in 1901 as compared with last year. But in manufactures the figures of the eight months of 1901 fall 36 million dollars below those of the corresponding months of 1900, a reduction of 12 per cent.

This is the first serious check that we have encountered in the growth of our exports of manufactures, a growth in which all Americans have felt a pride, and it is therefore well to analyze it carefully and see what we can determine as to its causes, and whether the reduction is general or "local" in any sense of the term.

We have heard a good deal in the past year or two about European combinations against the United States, and now that we find not only a check, but an actual reduction of 12 per cent. in that particular class of exports against which the Europeans are supposed to be most inclined to wage war, we naturally desire to examine the question with great care, and determine, if possible, whether this is the beginning of the threatened "war against American manufactures."

Another statement which has been frequently made about the exports of manufactures, and one which has been the subject of much sharp discussion, is that American manufactures, and especially the great combinations, frequently force their goods into the foreign market when there is an over-production at home, by selling abroad at lower prices than in the home market.

The following questions, then, present themselves in attempting to analyze the decrease in the exports of manufactures:

(I.) Has the reduction occurred in the class of articles chiefly sold in the European countries where the alleged hostility to our manufactures is said to exist?

(II.) Is the reduction in exports of manufactures general, or confined to any particular class of articles?

(III.) Have the articles manufactured and controlled by the great business organizations, the "trusts," suffered a less reduction in exportation than those produced by the smaller manufacturers?

(IV.) Is the reduction due in any degree to reduction in prices, or is it wholly in quantity of articles exported?

Before attempting to answer these questions, it is proper to say that the record of manufactures exported in the eight months of 1901 does not include the exports to the Hawaiian Islands or Porto Rico, which are now customs districts of the United States. In the corresponding eight months of 1900, the recorded exports to Hawaii and Porto Rico were over $10,000,000, and of this sum it is probable that over one-half consisted of manufactures. The real reduction of the year, therefore, is only about $30,000,000, instead of the $36,000,000 which it appears to be on the surface.

The first question to determine is whether the reduction is general, or only confined to a few articles.

If the reduction proves to be general, it may be fairly assumed to indicate a corresponding reduction in the general consuming power of the world.

If the reduction is found to be confined to a few articles, it is practicable to study conditions regarding production, prices, distribution, and consumption of each, and perhaps determine whether the cause is general or "local."

To make this analysis, I present first a statement of the total exports of the six great classes of domestic merchandise in the eight months of 1901, compared with the corresponding period of 1900.

EXPORTS OF DOMESTIC MERCHANDISE FROM THE UNITED STATES.

Classes of Products.	Eight months ending August 31. 1900.	 1901.
Agricultural	$523,133,140	$583,245,251
Manufactures	304,087,505	267,853,957
Mining	27,206,104	27,384,201
Forest	37,525,538	35,057,480
Fisheries	3,232,597	3,075,508
Miscellaneous	3,558,786	2,975,224
Total	$898,743,670	$919,591,621

It will be seen from an examination of the above that the total exports show a healthy growth, that those of agriculture show an increase of over 11 per cent., that those of the mines, the forest, and the fisheries show no material change, and that the reduction is practically confined to manufactures.

It is therefore necessary to proceed to analyze the exports of manufactures and to determine whether the reduction in this class is general, or confined to a few articles, and if the latter, what articles. I present, therefore, the following table showing the exports of all classes of manufactures in which the value exceeded $1,000,000 in the eight months ending with August, 1901, comparing them with the figures for the corresponding months of 1900. The list includes over 90 per cent. of the value of all manufactures exported.

EXPORTS OF MANUFACTURED ARTICLES FROM UNITED STATES, ARRANGED IN THE ORDER OF MAGNITUDE IN 1901.

Articles.	Eight months ending August 31. 1900.	 1901.
Iron and steel	$87,174,209	$69,346,379
Refined mineral oil	46,061,080	42,820,880
Copper	41,830,330	23,181,103
Leather	17,697,762	19,050,852
Cotton goods	15,274,667	16,941,254
Agricultural implements	13,854,774	14,558,166
Chemicals	9,188,129	9,805,136
Cars and carriages	7,334,172	7,643,216
Wood manufactures	7,899,847	7,456,569
Paper and manufactures	4,503,766	4,891,817
Scientific instruments	4,171,561	4,699,376
Paraffin	5,378,651	3,871,077
Tobacco manufactures	4,033,145	3,527,371
Fiber manufactures	2,872,007	3,138,527
Books, maps, etc	2,044,306	2,268,557
Musical instruments	1,154,564	2,198,197
Starch	1,880,543	2,094,266
India rubber manufactures	1,710,965	1,996,310
Sugar and molasses	1,964,007	1,962,785
Clocks and watches	1,280,226	1,582,286
Glass and glassware	1,336,954	1,449,469
Brass	1,392,916	1,391,976
Paints	1,405,956	1,390,446
Gunpowder, etc.	1,266,059	1,284,473
Marble and stone	1,045,542	1,138,048
Soap	1,148,786	1,035,544
Wool manufactures	886,030	1,018,883
All other	19,196,551	16,110,994
Total	$304,987,505	$267,853,957

An examination of the above table shows that the reduction is confined to a few articles, and cannot be said to be in any sense general. About three-fifths of the articles show an increase, and the principal decreases are confined to three articles—copper, iron and steel, and refined illuminating oil. The reduction in copper alone is $18,649,227, in iron and steel $17,827,830, and mineral oil $3,240,200. Of mineral oil it may be said that the decrease is wholly in price, the quantity exported in the eight months of 1901 being 589,058,603 gallons, as against 541,365,331 gallons in the same months of 1900, an actual increase of 47,693,272 gallons; while the value has fallen $3,250,200.

This analysis, then, shows that the only articles in our entire list of exportations in which the reduction is sufficient to be considered significant are copper and the manufactures of iron and steel. The reduction in these classes is, as already stated: Copper, $18,649,227; iron and steel, $17,827,830, a total of $36,477,057, or slightly more than the total reduction in manufactures as a whole, showing that in other lines the exports have increased.

We may, then, conclude that the decrease in exports is not due to a general "boycott" of American manufactures as a whole, or indeed to a general reduction in the exportation of manufactures, and with this assumption may proceed to study the exports of the two articles in which the reduction chiefly occurs, and try to determine its cause.

On taking up the schedule of iron and steel exports, in which the reduction is $17,827,830, we find it composed of a large number of items. There are twenty-five articles or classes of articles in which the value of the exports in the eight months ending with August, 1901, amounted to over $500,000. Steel rails was the largest single item, over $6,000,000; builders' hardware, over five millions; electrical machinery, about four millions; pipes and fittings, three and a half millions; locomotives, three millions; wire, about three millions; sewing machines, two and a half millions, and typewriters, metal-working machinery, and structural iron and steel each about two million dollars, while the general classification "machinery" includes a total value of twelve million dollars. Arranging these in the order of relative value, the list for the eight months of 1901, compared with the same months of 1900, stands as follows:—

VALUE OF EXPORTATIONS OF IRON AND STEEL MANUFACTURES IN THE EIGHT MONTHS ENDING WITH AUGUST 31, 1901, COMPARED WITH THE CORRESPONDING MONTHS OF 1900.

	Eight months ending August 31.	
Articles.	1900.	1901.
Machinery	$15,694,889	$12,063,165
Steel rails	7,761,711	6,715,113
Builders' hardware	6,583,263	5,887,658
Electrical machinery	3,590,419	3,919,574
Pipes and fittings	4,431,856	3,571,537
Locomotives	3,481,407	3,050,246
Wire	3,359,433	2,994,087
Sewing machines	3,095,842	2,528,122
Structural iron and steel	2,662,509	1,959,047
Metal-working machinery	4,712,225	1,912,297
Typewriters	1,820,107	1,905,633
Pumps and machinery	1,976,527	1,295,146
Boilers	1,223,392	903,743
Steel plates	863,921	818,000
Bars of steel	1,532,301	813,079
Shoe machinery	780,065	740,777
Castings	1,147,051	718,752
Pig iron	2,277,661	708,288
Billets, blooms, etc	938,418	671,135
Wire nails	1,275,448	633,967
Cash registers	514,501	589,466
Bar iron	239,970	569,938
Firearms	1,027,520	543,970
Stationary engines	525,696	507,696
All other	15,658,077	13,325,943
Total iron and steel manufactures	$87,174,209	$69,346,379

The first thing that strikes one on an examination of this table is the fact that the reduction is general. In practically every one of the twenty-five items there has been a greater or less reduction in the value of exportations. The next thought is that if the reduction is general the cause must be general. In other words, it can scarcely be charged that a general reduction of exports in the list of manufactures of iron and steel, including electrical and metal-working machinery, which go chiefly to Europe, builders' hardware, which goes to the West Indies, South America and the Orient, engines which go to India, Africa, and South America, sewing machines and typewriters which go to every part of the world where civilized man is to be found in any considerable numbers, wire and wire nails which go to Australia and South America and Africa, is due to a European "boycott." The reduction is so general and makes itself apparent in so many parts of the world simultaneously that the cause cannot be found in a local hostility.

The next question which suggests itself in considering this reduction is whether it is altogether in quantity, or perhaps in part at least due to a reduction in the selling price. It is well known that there was in 1899 a great advance in the price of iron and steel, so much so that predictions were made that exportation at the high prices which were then obtained would be impossible. This prediction was not verified, but the fact nevertheless remains that the prices of iron and steel were a year ago phenomenally high, all over the world, and that this was due to the extreme and phenomenal activity in every line of development. The whole world was engaged in the most intense industrial activity, and as a result of the extraordinary demand for material of this character, prices were excessively high. It was expected that there would be something of a reaction, and the prices in our own markets show that it has come.

Prices of Southern foundry pig iron, which in the home markets brought $15 per ton on August 1, 1900, were $10.75 on August 1, 1901; steel rails, which were $35 per ton on August 1, 1900, were $28 per ton on August 1, 1901; steel billets, which were $30 per ton last April, were $27 per ton on August 28; and Bessemer steel pig, which was $17.25 in March and April, was $16 per ton in August.

This reduction of prices in the home market suggests an inquiry as to whether there may not have been a reduction in the prices of articles exported.

To determine this I have taken all the exported articles of iron and steel in which the quantity as well as the value is stated, and obtained the average price per unit of quantity in the eight months ending with August, 1901, as compared with that of the corresponding period of 1900.

This analysis shows a reduction in the price of nearly every exported manufacture of iron and steel in which the price per unit of quantity can be determined. Iron ore fell from $3.3 per ton to $2.5; pig iron, from $18.9 per ton to $15.1; billets, from $30.6 to $24.8 per ton; steel rails, from $30.3 to $24.8; iron sheets and plates, from 3.1c. to 2c. per pound, and so on all along the line.*

The entire list of iron and steel exports in which it is possible to show the export price per unit of quantity is presented in the following table:

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*These prices, it should be remembered, are the average prices per unit of quantity for the entire eight months' period, and are not comparable with those above quoted with reference to the high-water mark prices of 1900, which represent a single date or brief period.

PRICES OF IRON AND STEEL AND MANUFACTURES THEREOF EXPORTED FROM THE UNITED STATES.

Articles.	Unit of Quantity.	Average price per Unit of Quantity for Eight Months Ending with August.	
		1900. Dollars.	1901. Dollars.
Iron ore	Ton	3.32	2.49
Pig iron	Ton	18.88	15.13
Scrap iron	Ton	17.92	15.90
Bar iron	Lb.	.023	.017
Wire rods	Lb.	.026	.015
All other steel bars	Lb.	.018	.018
Billets, ingots and blooms	Ton	30.65	24.80
Hoop, band and scroll	Lb.	.023	.021
Railway rails (iron)	Ton	22.34	28.47
Railway rails (steel)	Ton	30.29	26.93
Iron sheets and plates	Lb.	.035	.028
Steel sheets and plates	Lb.	.017	.017
Tin and terne plates	Lb.	.073	.051
Structural iron and steel	Ton	57.01	54.08
Wire	Lb.	.027	.024
Car wheels	No.	6.88	7.22
Fire engines	No.	1,845.00	1,221.00
Locomotive engines	No.	10,581.78	9,159.89
Stationery engines	No.	583.99	586.93
Cut nails and spikes	Lb.	.026	.021
Wire nails and spikes	Lb.	.026	.021
All other nails and tacks	Lb.	.065	.063
Safes	No.	65.89	55.31

We see, then, from the two tables which have been presented (1.) that the reduction in value of exports of iron and steel runs through the entire list, and is thus general and not "local"; (2.) that in nearly every case where the value per unit of quantity can be determined the price in 1901 is below that of 1900, and that much of the reduction in the total exports of iron and steel may therefore be charged against the reduction in prices.

The next question that suggests itself is whether this reduction in exports of iron and steel manufactures is confined to the United States, or whether it extends to other great manufacturing countries. If the latter be true it completes the assurance that the reduction is not due to a boycott of American products, or to a falling off in the relative popularity of our manufactures. To determine this I present the following statement showing the value of exports of iron and steel from the United Kingdom, France, Germany, Belgium and the United States in the twelve months ending June 30, 1900 and 1901:

EXPORTS OF IRON AND STEEL AND MANUFACTURES THEREOF DURING THE YEARS ENDING JUNE 30, 1900 AND 1901.

Countries.	1900.	1901.
*United Kingdom	$160,460,000	$133,486,000
Germany	107,110,000	120,304,000
United States	121,992,590	117,495,137
†France	37,600,000	35,164,000
‡Belgium	23,260,000	19,224,000

*Exclusive of machinery, cutlery and hardware.

†Including machinery, cutlery, arms and implements.

‡Figures are for eight months ending with August, and include arms, machinery and implements.

It will be seen from an examination of the above table that the United States is not alone in the reduction of exports of iron and steel, but that the decrease extends to all the great manufacturing and exporting nations of the world, with the single exception of Germany. This exceptional condition in the exports of Germany is believed to be chiefly due to the depression which is known to have existed in that country for some months, and to the efforts of German manufacturers to unload by exportation the accumulated stocks for which their home market no longer offers an attractive field.

We may sum up, then, the cause of the decrease in the exportation of American manufactures of iron and steel by saying (1.) that it is partly due to the absence of the figures of exports to the Hawaiian Islands and Porto Rico, which were about $7,000,000 per annum in iron and steel alone; (2.) that it is partly due to a reduction in price of the articles exported; (3.) that it is partly due to the general reduction in demand all over the world; (4.) that it is partly due to the conditions in Germany which have recently forced this class of articles from the German workshops upon the markets of the world at abnormally low prices; (5.) that as it occurs in articles which go to all parts of the world it cannot be said to be due to local causes or to attempts to exclude American manufactures from European markets; (6.) that the fact that other great manufacturing countries generally are feeling similar and even greater reductions shows that the causes are general and not due to unpopularity of American manufactures.

The only other article which shows a material reduction in value of the exports is copper, and this reduction seems to be due to causes entirely different from those found in iron and steel or in mineral oil. Copper exportations have fallen enormously, the figures being for the eight months of 1900 333,340,725 pounds of ingots, bars, plates, etc., valued at $55,772,166; and in eight months of 1901 252,769,328 pounds, valued at $41,260,376. Adding other manufactures, the total for eight months of 1900 is $57,852,960, and in eight months of 1901 $43,267,021, a fall of 25 per cent. in total value. It cannot be said that any considerable part of this fall is due to a reduction in price, the average value per pound being in the eight months of 1900 16.73 cents, and in 1900 16.32 cents.

The chief exports of copper from the United States are to the United Kingdom, Germany, France, Netherlands and Belgium. The official reports of the French Government show that the imports of copper into France were, in the year ending June 20, 1901, 577,134 metric quintals, against 561,331 in the preceding year, a material increase. In Germany the imports of crude copper for the same periods were 713,514 metric quintals, against 786,114 for the preceding year. In Netherlands the imports of crude copper were 48,214 tons in 1901, against 52,629 tons in the preceding year. In the United Kingdom the imports for the eight months ending with August, 1901, were: Of regulus and precipitate, 59,752 tons, against 55,833 tons in the corresponding months of 1900; of ore, 64,089 tons, against 75,733 tons in 1900; and of copper, unwrought and part wrought, 45,161 tons, against 50,425 tons in the corresponding months of the preceding year. In copper, wrought and unwrought, in which the total reduction was a little over 5,000 tons, the fall in imports from the United States alone was from 20,790 tons in eight months of 1900 to 14,124 tons in eight months of 1901, the entire reduction thus being from the United States.

It thus appears that the reduction in the total imports of the principal European countries is by no means in proportion to the reduction in our exports to them; in other words, that they have increased their purchases from other countries, while they have been reducing their purchases from the United States. The United Kingdom, for instance, in the eight months of 1901 increased her imports of copper ore from Cape of Good Hope three million tons and from Australia over seven million tons, and of copper, wrought and unwrought, from Chile about two million tons.

An examination of production in other parts of the world seems to strengthen the conclusion that the European countries are purchasing elsewhere at least a part of the supplies of copper which they formerly obtained from the United States. The production of copper in Australia, which, according to Merton & Co., of London, was 8,300 tons in 1889, was, according to Rothwell, 20,750 tons in 1899; Japan, in 1889, 15,000 tons, and in 1899, 27,000 tons; Mexico, in 1889, 3,780 tons, and in 1899, 19,000 tons; while the latest information indicates that the copper mines of Chile are rapidly increasing their output. This increase in production in other parts of the world, coupled with the increase in American production from 105,774 long tons in 1889 to 259,517 tons in 1899 and 270,600 tons in 1900, seems to have caused a greater reduction in price in other countries than the United States. This is proven not only by the fact that the European countries have made a less reduction in their purchases from those countries than in their imports from the United States, but also by the very remarkable fact that foreign copper is now actually invading the markets of the United States, the greatest copper-producing country of the world. In the fiscal year 1901 the imports of manufactured copper into the United States amounted to about $10,000,000 in value, and the total, including ore and regulus, was $20,581,716, as against $15,489,603 in 1900, $6,817,056 in 1899, $3,905,011 in 1898, $1,625,506 in 1897, and $801,332 in 1895.

To sum up this study of the reduction in the exportation of American manufactures, it may be said (1.) that the reduction is almost wholly in three articles, mineral oil, iron and steel, and copper, and that most other classes of manufactures continue to show a healthy growth in exportation; (2.) that the reduction in mineral oil is wholly in price, and not in quantity; (3.) that the reduction in iron and steel is partly due to the absence of figures on the exports of Hawaii and Porto Rico, partly to a fall in prices, partly to forced sales by Germany, and partly to the general reduction of demand all over the world, and in no sense to a "boycott" of American manufactures; and (4.) that the reduction in copper is due in some degree to a decreased demand abroad, and largely to increased production and reduced prices in the other producing countries of the world.

O. P. AUSTIN.